

As of 24 February 2022

Studies of Socio-Ecological Production Landscapes and Seascapes (SEPLS)

*United Nations University
(UNU-IAS, Operating Unit Ishikawa-Kanazawa-OUIK)*

Spring 2022

Location: Online until further notice
Time: 16:00 - 17:30 (Fridays)
(with some exceptions)

Lecturers: Dr. Maiko Nishi (nishi@unu.edu),
Dr. Juan Pastor-Ivars (pastorivars@unu.edu)
Office Hours: by appointment

Course Description

Recent global assessments of life on Earth show pervasive human-driven decline in nature and identify biodiversity loss as one of the top five global risks to society. Understanding the dynamics in human-nature interactions across multiple levels and scales is crucial for designing and implementing the interventions for biodiversity conservation and sustainability. Socio-ecological production landscapes and seascapes (SEPLS) – defined as dynamic mosaics and land and sea uses where the harmonious human-nature interaction maintains both biodiversity and human wellbeing – manifest a sustainable model of management practices as dynamic mosaics of habitats and land and sea uses where harmonious human-nature interaction maintains both biodiversity and human well-being. This course aims to deepen the understanding of SEPLS and explore various approaches to the studies of SEPLS. It will introduce key concepts, theories, methodologies that are useful to understand and undertake research on SEPLS.

Course Objectives and Learning Goals

This course will provide students with knowledge concerning key features as well as challenges and opportunities in managing SEPLS and demonstrate various approaches to the studies of SEPLS. By the end of the semester, students will be able to:

- Be familiarized with key concepts, approaches and methods of research on SEPLS, including landscape approaches, multiple values to nature, nexus approaches, scenario development, multi-level governance analysis, and urban ecology;
- Understand sustainable management approaches to integrate multiple dimensions of social-ecological systems generally and SEPLS in particular; and
- Conceptualize, design and critique empirical research on SEPLS.

Requirements and evaluation policy

The course requirements include class participation, mid-term and final group presentations, and final individual paper. The grading policy is as follows:

- Class participation: 20%
- Final group presentation and report: 40%
- Final individual paper: 40%

Class Participation:

Students are expected to do the assigned readings and come to sessions prepared for active participate in class discussions. The course requires students to show up to class on time and actively participate in all the classes.

Group Presentations and Report:

Students are required to design and conduct group work on one topic in which group members are interested. Outputs from each group will include a mid-term group presentation, a final group presentation, and a final report. A final presentation, as well as a final report, is expected to cover the problem statement (background), objectives and research questions (including hypotheses if appropriate), methodologies and methods, study materials and area/sites, results, discussion, conclusion, and references. Each group will make a mid-term presentation, which will not be graded, to report the progress of its work and receive feedback from the instructors for further work and any improvements.

Individual Paper:

Students are required to produce one individual term paper on the topic related to the group work but with a focus on certain element(s)/part(s) of the group work, which is of individual interest (approximately 3,000 words excluding references). The format of the individual paper follows the final report of the group work. However, each student is expected to include additional analysis on the group work in their individual paper, which should not be a mere short review of the final group presentation but a paper to show an additional individual effort on the topic or subtopic of the group work.

Course Outline

#	Date	Topic	Instructor
Introduction to the course & global biological concerns			
1	4/8 (16:00-17:30)	Introduction and overview of the course: Key concepts and theories on biodiversity, ecosystem services, SEPLS and landscape approaches	Maiko Nishi, Juan Pastor-Ivars
2	4/15 (16:00-17:30)	Needs for integrated solutions tackling multiple crises: interlinkages between biodiversity and climate change [virtual]	Himangana Gupta (Visiting Research Fellow / Former JSPS-UNU Postdoctoral Fellow)
Status and trends of SEPLS (Global trends and methodologies)			
3	4/18 (9:30-11:00)	Where are SEPLS located? [virtual]: Identification and mapping of SEPLs (Satoyama Index, Geographical identification of dynamic mosaics, etc.)	Yoji Natori (Associate Professor, Akita International University)

4	4/22 (16:00-17:30)	What values do SEPLS provide for people? [virtual]: Multiple values of nature and introduction to various valuation approaches	Suneetha M. Subramanian (Research Fellow UNU- IAS)
5	4/29 (16:00-17:30)	How can we quantify and measure SEPLS's contributions to people?: Ecosystem services quantitative analysis, sustainability assessments, etc.	Rajarshi Dasgupta (Senior Policy Researcher, Institute for Global Environmental Strategies)
6	5/6 (16:00-17:30)	How can we analyze flows of multiple ecosystem services as SEPLS's contributions to people? [virtual]: Cross-scale assessments, urban biodiversity, impacts on supply chains, etc.	Erik Andersson (Associate Professor, Resilience Center)
7	5/16 (16:00-17:30)	How can we evaluate resilience in SEPLS from the local perspectives?: (Resilience indicators, community-based assessments, nexus approaches)	Maiko Nishi
8	5/20 (16:00-17:30)	Mid-term group presentations	Maiko Nishi, Juan Pastor- Ivars
Governing SEPLS			
9	6/3 (16:00-17:30)	What are plausible futures of SEPLS?: Concepts, theories and tools for scenario development, analysis, and modeling	Shizuka Hashimoto (Associate Professor, The University of Tokyo)
10	6/10 (16:00-17:30)	How can we facilitate transformative change building on SEPLS management?: Multi-level governance, transition theories, etc.	Maiko Nishi
Case Studies: biodiversity and urban and rural communities			
11	6/17 (16:00-17:30)	Biocultural diversity in Noto peninsula [virtual or in-person]:	Sayako Koyama (OUIK)
12	6/24 (16:00-17:30)	Sustainable conservation and urban biodiversity in Kanazawa [virtual or in-person]:	Juan Pastor-Ivars (OUIK)
13	7/1 (16:00-17:30)	Field visit (virtual tour to Kanazawa and/or Noto) [virtual]	Juan Pastor-Ivars (OUIK)
Finals			
14	7/12 (16:00-17:30)	Final presentations (Group presentations)	Maiko Nishi, Juan Pastor- Ivars
15	7/15 (16:00-17:30)	Feedback session (Feedback to individual papers due on June 30)	Maiko Nishi, Juan Pastor- Ivars

Course Readings

Each class will have a set of required readings that should be completed prior to the class. The average reading load per class is 40-80 pages (although it depends on the subject of each class). The lecturer reserves the right to update the reading list throughout the course and will alert students to the changes in class.

Course Readings by Each Lectur

#	Topic
1	<p>Introduction and overview of the course</p> <ul style="list-style-type: none"> • Díaz, S., Demissew, S., Carabias, J., Joly, C., Lonsdale, M., Ash, N., ... & Zlatanova, D. (2015). The IPBES Conceptual Framework—connecting nature and people. <i>Current opinion in environmental sustainability</i>, 14, 1-16. • Reed, J., Van Vianen, J., Deakin, E. L., Barlow, J., & Sunderland, T. (2016). Integrated landscape approaches to managing social and environmental issues in the tropics: learning from the past to guide the future. <i>Global change biology</i>, 22(7), 2540-2554. • Saito, O., Shibata, H., Ichikawa, K., Nakamura, T., Honda, Y., & Morimoto, J. (2012). Satoyama and Satoumi, and ecosystem services: A conceptual framework. In Duraiappah, A.K., Nakamura, K., Takeuchi, K. Watanabe, M. and Nishi, M. (ed.): Satoyama-Satoumi ecosystems and human well-being: Socio-ecological production landscapes of Japan, 17-59. • Sayer, J., Sunderland, T., Ghazoul, J., Pfund, J. L., Sheil, D., Meijaard, E., ... & Buck, L. E. (2013). Ten principles for a landscape approach to reconciling agriculture, conservation, and other competing land uses. <i>Proceedings of the national academy of sciences</i>, 110(21), 8349-8356.
2	<p>Needs for integrated solutions tackling multiple crises: interlinkages between biodiversity and climate change</p> <ul style="list-style-type: none"> • Basics: Connecting biodiversity and climate change mitigation and adaptation: Report of the second ad hoc technical expert group on biodiversity and climate change (16 pages): https://www.cbd.int/doc/publications/ahteg-brochure-en.pdf • Biodiversity and climate action Information note by CBD (17 pages): https://www.cbd.int/climate/doc/information-note-01-unfccc-cop15-en.pdf • Recent development, IPBES and IPCC workshop (28 pages): https://www.ipcc.ch/site/assets/uploads/2021/07/IPBES_IPCC_WR_12_2020.pdf • UNFCCC COP 21 decision on alternative policy approaches (2 pages): https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/sbsta_42_agenda_item_4_alternative_policy_approaches_auv_template.pdf • UNFCCC decision on Ecosystem based adaptation (30 pages): https://digitallibrary.un.org/record/721003?ln=en
3	<p>Where are SEPLS located?</p>

	<ul style="list-style-type: none"> • Natori Y, Hino A. Global identification and mapping of socio- ecological production landscapes with the Satoyama Index. PLoS One. 2021;16: e0256327. https://doi.org/10.1371/journal.pone.0256327 (An article on how SEPLs might be mapped) • Natori Y, Dublin D. GEF-Satoyama Project (2015-2019) Impact Report. Tokyo: Conservation International Japan; 2019. Available: http://gef-satoyama.net/wp/wp-content/uploads/2019/08/Impact-Report.pdf (An overview of diversity of SEPLs and associated projects)
4	<p>What values do SEPLS provide for people?</p> <ul style="list-style-type: none"> • Preliminary Guide Regarding Diverse Conceptualization of Multiple Values of Nature and Its Benefits, Including Biodiversity and Ecosystem Functions and Services (Deliverable 3 (d)) Available at: https://www.ipbes.net/sites/default/files/downloads/IPBES-4-INF-13_EN.pdf • Satoyama Initiative Thematic Review 5 Understanding the Multiple Values associated with Sustainable Use in Socio-ecological Production Landscapes and Seascapes (SEPL) Available at: https://collections.unu.edu/eserv/UNU:7506/SITR_vol5_fullset_web.pdf • Stalhammer S and Thorein H, 2019, Three perspectives on relational values of nature, Sustainability Science 14: 1201-1212. Available at: https://link.springer.com/content/pdf/10.1007/s11625-019-00718-4.pdfKey
5	<p>How can we quantify and measure SEPLS's contributions to people?</p>

	<ul style="list-style-type: none"> • Chan, K. M., Balvanera, P., Benessaiah, K., Chapman, M., Díaz, S., Gómez-Baggethun, E., ... & Turner, N. (2016). Opinion: Why protect nature? Rethinking values and the environment. <i>Proceedings of the national academy of sciences</i>, 113(6), 1462-1465. https://www.pnas.org/content/pnas/113/6/1462.full.pdf • Schägner, J. P., Brander, L., Maes, J., & Hartje, V. (2013). Mapping ecosystem services' values: Current practice and future prospects. <i>Ecosystem Services</i>, 4, 33-46. https://www.sciencedirect.com/science/article/pii/S2212041613000120 • Takahashi, Y., Park, K. J., Natori, Y., Dublin, D., Dasgupta, R., & Miwa, K. (2021). Enhancing synergies in nature's contributions to people in socio-ecological production landscapes and seascapes: Lessons learnt from ten site-based projects in biodiversity hotspots. <i>Sustainability Science</i>, 1-14. https://link.springer.com/article/10.1007/s11625-021-00927-w • Hashimoto, S., DasGupta, R., Kabaya, K., Matsui, T., Haga, C., Saito, O., & Takeuchi, K. (2019). Scenario analysis of land-use and ecosystem services of social-ecological landscapes: implications of alternative development pathways under declining population in the Noto Peninsula, Japan. <i>Sustainability Science</i>, 14(1), 53-75. https://link.springer.com/article/10.1007%2Fs11625-018-0626-6 • Dasgupta, R., Hashimoto, S., Basu, M., Okuro, T., Johnson, B. A., Kumar, P., & Dhyani, S. (2021). Spatial characterization of non-material values across multiple coastal production landscapes in the Indian Sundarban delta. <i>Sustainability Science</i>, 1-14. https://link.springer.com/article/10.1007/s11625-020-00899-3 • Wolff, S., Schulp, C. J. E., & Verburg, P. H. (2015). Mapping ecosystem services demand: A review of current research and future perspectives. <i>Ecological Indicators</i>, 55, 159-171. https://www.sciencedirect.com/science/article/pii/S1470160X15001405 • DasGupta, R., Hashimoto, S., & Gundimeda, H. (2019). Biodiversity/ecosystem services scenario exercises from the Asia–Pacific: typology, archetypes and implications for sustainable development goals (SDGs). <i>Sustainability Science</i>, 14(1), 241-257. https://link.springer.com/article/10.1007/s11625-018-0647-1 • Alcamo, J. (Ed.). (2008). <i>Environmental futures: the practice of environmental scenario analysis</i>. Elsevier
6	<p>How can we analyze flows of multiple ecosystem services as SEPLS's contributions to people?</p>

	<ul style="list-style-type: none"> • Andersson, E., S. Borgström, D. Haase, J. Langemeyer, A. Mascarenhas, T. McPhearson, M. Wolff, E. Łaszkiewicz, J. Kronenberg, D. N. Barton, and P. Herreros-Cantis. 2021. A context sensitive systems approach for understanding and enabling ecosystem service realisation in cities. <i>Ecology and Society</i> 26:35. • Andersson, E., J. Langemeyer, S. Borgström, T. McPhearson, D. Haase, J. Kronenberg, D. N. Barton, M. Davis, S. Naumann, L. Röschel, and F. Baró. 2019. Enabling Green and Blue Infrastructure to Improve Contributions to Human Well-Being and Equity in Urban Systems. <i>BioScience</i> 69(7):566–574. • Borgström, S., E. Andersson, and T. Björklund. 2021. Retaining multi-functionality in a rapidly changing urban landscape: insights from a participatory, resilience thinking process in Stockholm, Sweden. <i>Ecology and Society</i> 26(4):17. • Meacham, M., Norström, A. V., Peterson, G. D. Andersson, E., Bennett, E. M., Biggs, R., Crouzat, E., Cord, A. F., Enfors, E., Felipe-Lucia, M. R., Fischer, J., Hamann, M., Hanspach, J., Hicks, C., Jacobs, S., Lavorel, S., Locatelli, B., Martín-López, B., Plieninger, T and Queiroz, C. Advancing research on ecosystem service bundles for comparative assessments and synthesis. <i>Ecosystems and People</i>, <i>accepted</i>. • Pascual, U., P. Balvanera, S. Díaz, G. Pataki, E. Roth, M. Stenseke, R. T. Watson, E. Başak Dessane, M. Islar, E. Kelemen, V. Maris, M. Quaas, S. M. Subramanian, H. Wittmer, A. Adlan, S. Ahn, Y. S. Al-Hafedh, E. Amankwah, S. T. Asah, P. Berry, A. Bilgin, S. J. Breslow, C. Bullock, D. Cáceres, H. Daly-Hassen, E. Figueroa, C. D. Golden, E. Gómez-Baggethun, D. González-Jiménez, J. Houdet, H. Keune, R. Kumar, K. Ma, P. H. May, A. Mead, P. O’Farrell, R. Pandit, W. Pengue, R. Pichis-Madruga, F. Popa, S. Preston, D. Pacheco-Balanza, H. Saarikoski, B. B. Strassburg, M. van den Belt, M. Verma, F. Wickson, and N. Yagi. 2017. Valuing nature’s contributions to people: the IPBES approach. <i>Current Opinion in Environmental Sustainability</i> 26–27:7–16.
7	How can we evaluate resilience in SEPLS from the local perspectives?

	<ul style="list-style-type: none"> Dunbar, W., Subramanian, S. M., Matsumoto, I., Natori, Y., Dublin, D., Bergamini, N., ... & Mock, G. (2020). Lessons Learned from Application of the “Indicators of Resilience in Socio-ecological Production Landscapes and Seascapes (SEPLS)” Under the Satoyama Initiative. In <i>Managing Socio-ecological Production Landscapes and Seascapes for Sustainable Communities in Asia</i> (pp. 93-116). Springer, Singapore. Available at: https://collections.unu.edu/eserv/UNU:7587/Dunbar2020_Chapter_LessonsLearnedFromApplicationO.pdf Folke, C., Biggs, R., Norström, A. V., Reyers, B., & Rockström, J. (2016). Social-ecological resilience and biosphere-based sustainability science. <i>Ecology and Society</i>, 21(3). http://www.jstor.org/stable/26269981 Li, T., Dong, Y., & Liu, Z. (2020). A review of social-ecological system resilience: Mechanism, assessment and management. <i>Science of the Total Environment</i>, 723, 138113. https://doi.org/10.1016/j.scitotenv.2020.138113. UNU-IAS, Bioversity International, IGES and UNDP (2014) Toolkit for the Indicators of Resilience in Socio-ecological Production Landscapes and Seascapes (SEPLS). Available at: https://collections.unu.edu/eserv/UNU:5435/Toolkit_for_the_Indicators_of_Resilience.pdf
9	<p>What are plausible futures of SEPLS?</p> <ul style="list-style-type: none"> Alcamo, J., & Ribeiro, T. (2001). Scenarios as tools for international environmental assessment (Vol. 5). European Environment Agency. (https://www.eea.europa.eu/publications/environmental_issue_report_2001_24) Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, IPBES. (2016). Summary for policymakers of the methodological assessment of scenarios and models of biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Zenodo. https://doi.org/10.5281/zenodo.3235275
10	<p>How can we facilitate transformative change building on SEPLS management?</p> <ul style="list-style-type: none"> Nishi, M., Subramanian, S. M., Gupta, H., Yoshino, M., Takahashi, Y., Miwa, K., & Takeda, T. (2021). <i>Fostering Transformative Change for Sustainability in the Context of Socio-Ecological Production Landscapes and Seascapes (SEPLS)</i> (p. 249). Springer Nature. Available at: https://link.springer.com/book/10.1007/978-981-33-6761-6 Chan, Kai M. A., Agard, John, Liu, Jianguo, Dutra De Aguiar, Ana Paula, Armenteras Pascual, Dolors, Boedhihartono, Agni Klintuni, Cheung, William W. L., Hashimoto, Shizuka, Hernández-Pedraza, Gladys Cecilia, Hickler, Thomas, Jetzkowitz, Jens, Kok, Marcel, Murray-Hudson, Michael Alan, O'Farrell, Patrick, Satterfield, Theresa, Saysel, Ali Kerem, Seppelt, Ralf, Strassburg, Bernardo, Xue, Dayuan, ... Mohamed, Assem Abdelmonem Ahmed. (2019). Chapter 5. Pathways towards a Sustainable Future. Zenodo. https://doi.org/10.5281/zenodo.5519483
11	<p>Biocultural diversity in Noto peninsula</p>

	<ul style="list-style-type: none"> • Yiu, E. Noto Peninsula after GIAHS Designation: Conservation and Revitalization Efforts of Noto's Satoyama and Satoumi. <i>J. Resour. Ecol.</i> 2014, 55, 364–369. • Template for GIAHS proposal Globally Important Agricultural Heritage Systems (GIAHS) Initiative:Noto's Satoyama and Satoumi (https://www.fao.org/3/bp795e/bp795e.pdf) Reading from page 1 to 24 • Hashimoto, S., Shogo Nakamura, S., Saito, O., Kohsaka, R., Kamiyama, C., Tomiyoshi, M., Kishioka, T. Mapping and characterizing ecosystem services of social–ecological production landscapes: case study of Noto, Japan. <i>Sustain Sci.</i> 2015, 10, 257–273 • Cetinkaya, G., Challenges for the maintenance of traditional knowledge in the satoyama and satoumi ecosystems, Noto Peninsula, Japan. <i>Journal of Human Ecology Review.</i> 2009. 16(1), 27-40
12	<p>Sustainable conservation and urban biodiversity in Kanazawa</p> <ul style="list-style-type: none"> • Beninde, Joscha, Michael Veith, and Axel Hochkirch. "Biodiversity in cities needs space: a meta-analysis of factors determining intra-urban biodiversity variation." <i>Ecology letters</i>18, no. 6 (2015): 581-592. • Cocks, M.L., & Shackleton, C.M. (Eds.). (2020). <i>Urban Nature: Enriching Belonging, Wellbeing and Bioculture</i> (1st ed.). Routledge. Chapter 2: Pastor-Ivars, Juan. The veil, the clearing and the flow New commons of Japanese traditional gardens in Kanazawa city https://library.unu.edu/cgi-bin/koha/opac-detail.pl?biblionumber=41947 • Connop, Stuart, Paula Vandergert, Bernd Eisenberg, Marcus J. Collier, Caroline Nash, Jack Clough, and Darryl Newport. "Renaturing cities using a regionally-focused biodiversity-led multifunctional benefits approach to urban green infrastructure." <i>Environmental Science & Policy</i> 62 (2016): 99-111. • Gill, S.E., Handley, J.F., Ennos, A.R., Pauleit, S., 2007. Adapting cities for climate change: the role of the green infrastructure. <i>Built Environ.</i> 33 (1), 115–133 • Kabisch, Nadja, Niki Frantzeskaki, Stephan Pauleit, Sandra Naumann, McKenna Davis, Martina Artmann, Dagmar Haase et al. "Nature-based solutions to climate change mitigation and adaptation in urban areas: perspectives on indicators, knowledge gaps, barriers, and opportunities for action." <i>Ecology and Society</i> 21, no. 2 (2016). • McDonnell, Mark J., and Ian MacGregor-Fors. "The ecological future of cities." <i>Science</i> 352, no. 6288 (2016): 936-938. • McPhearson, Timon, Susan Parnell, David Simon, Owen Gaffney, Thomas Elmqvist, Xuemei Bai, Debra Roberts, and Aromar Revi. "Scientists must have a say in the future of cities." <i>Nature News</i> 538, no. 7624 (2016): 165. • Pastor-Ivars, Juan. ed. (2019) <i>Restoring Kinship with Nature through Japanese Gardens: The Challenge to Achieve a Sustainable Commons in Kanazawa</i> UNU- IAS OUIK, Kanazawa, Japan. 132pp. https://ouik.unu.edu/wp-content/uploads/Booklet5-Restoring-Kinship-with-Nature-through-Japanese-Garden.pdf

Invited Speakers/Lecturers Bio

Maiko Nishi, Ph.D. (Lectures 1, 7 and 10)

Research Fellow, UNU-IAS

Dr. Maiko Nishi is a Research Fellow of UNU-IAS, engaging in research and capacity development activities for the International Partnership for the Satoyama Initiative (IPSI). Her area of research interest includes social-ecological system governance, local and regional planning and agricultural land policy. In particular, her interest lies in multi-level governance, land tenure and use, and subjectivities of institutional actors in governing natural resources. She began her career as a consultant in urban planning and experienced projects related to participatory planning, rural water supply and regional development. She also engaged in the follow-up to the Millennium Ecosystem Assessment.

Juan Pastor-Ivars Ph.D. (Lectures 1, 12 and 13)

Research Associate, UNU-IAS OUIK

Dr. Juan Pastor-Ivars is a Research Associate at UNU-IAS Operating Unit Ishikawa / Kanazawa (OUIK). His areas of academic expertise are the fields of architecture, landscape architecture, and landscape ecology. His current research focuses on the sustainable conservation and new creation of urban ecosystem services pursuing the creation of blue-green infrastructure. Author of the S.U.N (Sustainable Urban Nature) Project. This project aims to find scientific evidence of urban green spaces' environmental, social, and economic benefits. The ultimate goal is the socio-ecological restoration of urban areas affected by environmental issues and demographic decline.

Himangana Gupta, Ph.D. (Lecture 2)

Manager, Sustainable Landscapes and Restoration Program, World Resource Institute, New Delhi

Dr. Himangana Gupta is a Manager, Sustainable Landscapes and Restoration Program, World Resources Institute, New Delhi, and a Visiting Research Fellow at UNU-IAS. She was a JSPS-UNU Postdoctoral Fellow at UNU-IAS and the University of Tokyo from 2019-2021. Before this, she was Programme Officer in the National Communication Cell of the Indian Ministry of Environment, Forest and Climate Change from 2016-2019. An expert in climate change and biodiversity linkages, she worked on climate adaptation, forestry, women and climate change, and sustainability.

Yoji Natori, Ph.D. (Lecture 3)

Associate Professor, Global Studies, Faculty of International Liberal Arts, Akita International University

Expertise in landscape ecology and conservation. Joined AIU after 16 years with NGOs in 2019. At AIU, he builds on his experiences at NGOs in on-the-ground practice and policy work in issues of conservation, particularly biodiversity, the Satoyama Initiative and natural capital, and teaches environmental science, conservation and sustainable development. He also serves as an honorary advisor to Conservation International Japan, vice chair of the Japan Committee for IUCN, and a member of the Environment Council of Akita Prefecture.

Suneetha M Subramanian, Ph.D. (Lecture 4)

Research Fellow, UNU-IAS

Dr. Suneetha M. Subramanian is currently a Research fellow with the United Nations University Institute for the Advanced Study of Sustainability. She has more than 15 years of experience in international and sub-national research and capacity building activities relating to biodiversity and human well-being focusing on equity, traditional knowledge, linking policy goals to local

priorities and community well-being, socio-ecological resilience. She has been involved in various assessments of the IPBES (Regional, Global and currently Values Assessment) as Lead/Co-ordinating Lead author and is on the Editorial board of the Sustainability Science Journal and the Journal of Ecosystems and People.

Rajarshi Dasgupta, Ph.D. (Lecture 5)

Senior policy researcher, Institute for Global Environmental Strategies (IGES)

Dr. Rajarshi Dasgupta is a senior policy researcher at the Institute for Global Environmental Strategies (IGES). His research interests are environmental scenario planning, spatial quantification of ecosystem services and community-based conservation. He was a Lead Author (LA) for the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES) Asia-Pacific Regional Assessment Report and currently serving as a Lead Author for the IPBES assessment on Sustainable Use of Wild Species (2018-22). Dr Dasgupta authored/co-authored more than 50 peer-reviewed papers in reputed international journals on the topic related to the mapping and monitoring of ecosystem services and natural resource conservation.

Erik Andersson, Ph.D (Lecture 6)

Associate Professor, Stockholm Resilience Center

Dr. Erik Andersson is a senior scientist and associate professor with Stockholm Resilience Centre, Stockholm University. He is an active and independent scientist with more than 70 publications in scientific journals, 5 book chapters and multiple technical reports and popular science items. Andersson has experience in systems and landscape ecology, geography, urban studies, landscape governance, participatory transdisciplinary research, review and synthesis work. Outside academia, his transdisciplinary research is paralleled by engagement and collaboration with civic, public and private actors, with tasks and activities such as being a member of expert panels and advisory boards.

Shizuka Hashimoto, Ph.D. (Lecture 9)

Associate Professor, The University of Tokyo

Dr. Shizuka Hashimoto is an associate professor at the Department of Ecosystem Studies, School of Agricultural and Life Sciences, the University of Tokyo. His research interests include land change & ecosystem service simulation, and scenario analysis. He contributed to a Japan Satoyama Satoumi Assessment as a Coordinating Lead Author and served as one of the expert group members for Japan Biodiversity Outlook 2 and 3. Internationally, he contributed to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment and the Asia-Pacific Regional Assessment as a Lead Author. Since 2018, he has served as one of the Multidisciplinary Expert Panel members of IPBES.

Sayako Koyama (Lecture 11)

Research Associate, UNU-IAS OUIK

Dr. Sayako Koyama is a research associate at UNU-IAS OUIK. Her work focuses on Noto GIAHS (the Globally Important Agricultural Heritage Systems) in Ishikawa Prefecture, especially in the field of biocultural diversity and GIAHS/SDGs education for school children. Formerly, she worked at an environmental consultancy, Kanazawa University on the Noto Satoyama Satoumi Meister Training Program, and others. Currently, she also supports Noto

SDGs Lab. in Suzu City as a collaborative researcher and hopes to contribute to build a better relationship between people and nature.